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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,488	03/29/2001	Youssef El-Shoubary	20844	5295
7590 05/19/2004			EXAMINER	
DAVID A. MUTHARD C/O MERCK & CO; INC. PATENT DEPARTMENT RY60-30 P.O. BOX 2000, RAHWAY, NJ 07065-0907			JOHNSON, EDWARD M	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/820,488	EL-SHOUBARY ET AL.	
	Examiner	Art Unit	
	Edward M. Johnson	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,10,20,22 and 24-35 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,20,22 and 26-35 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-2, 5 and 24-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No disclosure of the newly claimed range, which specifically excludes 10% by specifying only values "greater than" 10% was found in the original disclosure. However, Applicant is respectfully invited to cite such a disclosure to the Examiner if Applicant believes otherwise.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Abler US 5,496,785.

Regarding claim 1, Abler '785 discloses a dual impregnated activated carbon suitable for filtering contaminants (abstract) comprising activated carbon and group 6-12 salts including copper chloride (see column 2, line 56) in an amount of at least 0.5, or more specifically 1 to 10 weight percent (see paragraph bridging columns 2-3).

Regarding claim 2, Abler '785 discloses wood, coal, coconut, and organic polymers (see column 2, lines 19-21).

Regarding claim 5, Abler '785 discloses potassium permanganate also may be included (see column 1, lines 30-32).

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Peng US 5,529,970.

Regarding claim 1, Peng '970 discloses an adsorbent comprising a submicron support (see column 3, lines 15-16) and

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at least 15 weight percent cupric chloride (see column 3, lines 46-48).

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-226389 (English abstract also attached).

Regarding claim 1, JP '389 discloses a high surface area (see Table) adsorbent comprising 10-35 mass % of copper chloride (see abstract) and PVA (see column 15, top).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peng '970.

Peng fails to disclose activated or graphite carbon as support.

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use activated carbon as support in the cupric chloride comprising adsorbent of Peng because Peng discloses prior art

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supports of activated or graphite carbon for copper halide (see column 1, lines 57-67) and that supports are well known in the prior art (see column 5, lines 14-16).

9. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abler '785 as applied to claims 1 and 5 above, and further in view of Kienow et al. US 6,352,956.

Kienow '956 discloses removal of dioxins, furans, and heavy metals (see column 1, lines 25-28).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to intend to use the removal of dioxins, furans, and heavy metals (see column 1, lines 25-28) of Kienow with the adsorbent of Abler because Abler discloses his compositions suitable for filtering gaseous contaminants (see abstract), and Kienow discloses his calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

Allowable Subject Matter

10. Claims 10, 20, 22, and 26-35 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: An adsorption powder having the

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percentages of compounds including the percentages of carbon powder, cupric chloride, calcium hydroxide, and/or potassium iodide of the instant claims 6, 10, 12, 20, 22, and 26-35 would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

12. Applicant's arguments filed 7/28/03 have been fully considered but they are not persuasive.

It is argued that responsive to the final rejection of claim 1... "greater than 10 to about 45 weight percent". This is not persuasive because Abler discloses both the specific range of 1 to 10 percent -in combination- with the broader range of at least 0.5 percent, which is considered a disclosure of at least some values greater than 10 percent.

It is argued that as noted in the previous response... carbon-based powder. This is not persuasive because the Examiner's has taken evidence from the reference to support a rationale of obviousness and motivation to those skilled in the art (see above). Further, Applicant appears to admit that both cupric and cuprous chloride are disclosed, arguing only that cupric chloride may later be reduced. This appears to suggest that before any reduction, the claimed compound is disclosed. And, in any case, it is again noted that original claim 4 and

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the instant specification demonstrate that the claims do not define "cupric chloride" as having any particular molecular formula aside from containing copper and chloride atoms. It is noted that the features upon which applicant relies (i.e., cupric chloride specifically defined as having a particular chemical formula other than mere copper and chloride atoms) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

It is argued that with respect to the Japanese language document itself... element of claim 1. This is not persuasive because the abstract Applicant has provided includes an "inorganic carrier", which, if anything is further evidence that a carbon-based carrier is disclosed since this includes inorganic activated carbon. JP '389 also discloses PVA and alumina (see column 15, top), which together are considered sufficient evidence of anticipation, since PVA, or poly(vinyl alcohol), is an organic (i.e. carbon based) material. Contrary to Applicant's assertion, the Examiner has not asserted that "Applicant bears the burden of obtaining a translation". Rather, the Examiner considers the disclosure to be sufficient evidence of anticipation since a preponderance of the evidence of record

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suggests the presence of a carbon-based carrier. Applicant, however, is merely -invited- to submit a translation of the reference in rebuttal, -if Applicant desires-. An "inorganic carrier" includes inorganic activated carbon, which Since Applicant appears to have offered no rebuttal to the Examiner's citation in the Japanese document that would suggest a carbon-based carrier is not disclosed, the rejection is maintained.

It is argued that responsive to the rejection of Claim 2... carbon-based powder. This is not persuasive because Applicant appears to admit that that before any reduction, the claimed compound is disclosed. And, in any case, it is again noted that original claim 4 and the instant specification demonstrate that the claims do not define "cupric chloride" as having any particular molecular formula aside from containing copper and chloride atoms. It is noted that the features upon which applicant relies (i.e., cupric chloride specifically defined as having a particular chemical formula other than mere copper and chloride atoms) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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It is argued that responsive to the rejection of claims 24 and 25... presently recited in claim 1. This is not persuasive because the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to intend to use the removal of dioxins, furans, and heavy metals (see column 1, lines 25-28) of Kienow with the adsorbent of Abler because Abler discloses his compositions suitable for filtering gaseous contaminants (see abstract), and Kienow discloses his calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

It is argued that one of ordinary skill in the art would not have combined the references... 'activated carbon'. This is not persuasive because Applicant appears to suggest that the

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references are not obvious to combine simply because they do not disclose Applicant's disclosed purpose for Applicant's invention. However, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The Examiner recognizes that it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references teach adsorption of contaminants from gas (see "Background" section of both references, first column, first sentence).

It is argued that it should be noted that the present invention is not directed to "exhaust gas cleaning systems". This is again not persuasive because the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be

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obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0987.

EMJ
May 15, 2004

